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MARKETING MARGINS FOR DAIRY PRODUCTS

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Growth Through Agricultural Progress

MARKETING MARGINS FOR DAIRY PRODUCTS 1/

Annual average marketing margins for dairy products showed mixed changes from 1959 to 1960: For fluid milk, cheese, and evaporated milk, retail prices, marketing margins, and farm values were all higher. For butter and ice cream, retail prices and marketing margins were lower, but farm values were higher. Changes in container sizes resulted in lower weighted prices for ice cream during the 1951-60 period. The following article describes these changes.

Fluid Milk

Retail prices, marketing margins, and farm values for fluid milk rose slightly during 1960. 2/ The annual average retail price paid by urban consumers was up to 25.3 cents per quart, an increase of 0.6 cent from 1959 (table 10). An increase of 0.4 cent in the marketing margin to 14.4 cents was a continuation of increases that occurred every year during the last decade, 1951-60. The farm value continued the rising trend from the 10-year low reached in 1955; in 1960 it was 10.9 cents per quart equivalent, an increase of 0.2 cent from 1959. During the 10 years, 1951-60, the retail price increased 14 percent, the farm value decreased 3 percent, and the marketing margin increased 32 percent.

No Increase in Average Price Paid by Household Consumers

In spite of increases in retail prices shown in table 10, which are mainly for single-quart sales, the weighted average of prices paid by consumers has changed little in recent years. Increases in prices of milk in individual sizes of containers have been offset by shifts in purchases to lower per-quart priced containers, products, and place of purchase. These shifts have been from quart to half-gallon containers, from premium priced milk to regular homogenized milk, and from home delivery to store purchases. In each instance, consumers have substituted a lower for a higher priced product. In addition, quantity discount plans for home delivered milk have come into extensive use in recent years.

Sales Value, Costs, and Margins for Fluid Milk Distributors

Stability in the weighted average of prices paid by consumers is indicated by the data in table 11. During the 1952-60 period net sales receipts per unit of product sold by fluid milk distributors have decreased slightly.

The cost of raw milk and cream declined by 13 percent from 1952 to 1960. This decline was more than offset by the 21-percent increase in milk distributors' operating expense; thus, the net margin before income taxes decreased on a per unit of product basis.

1/ Prepared by D. D. MacPherson, agricultural economist, and Helen V. Smith, statistical assistant, Marketing Economics Research Division, Agricultural Marketing Service.

2/ The terms marketing margin and farm-retail spread are used interchangeably to define the charges made by marketing agencies for assembling, processing, transporting, and distributing dairy products. These charges, in total, are the differences between the retail price and the farm value or payment farmers received for the equivalent quantity of the raw product.

Table 10.--Fluid milk: Average annual retail price per quart in urban areas, farm value, marketing margin, and farmer's share of retail price, United States, average 1947-49, and annual 1950-60 1/

Year	Retail price	Farm value	Marketing margin	Farmer's share
	Cents	Cents	Cents	Percent
1947-49	20.1	10.6	9.5	53
1950	19.8	9.9	9.9	50
1951	22.1	11.2	10.9	51
1952	23.2	11.9	11.3	51
1953	22.8	11.1	11.7	49
1954	22.4	10.4	12.0	46
1955	22.5	10.2	12.3	45
1956	23.3	10.6	12.7	45
1957	24.2	10.9	13.3	45
1958	24.5	10.7	13.8	44
1959	24.7	10.7	14.0	43
1960 2/	25.3	10.9	14.4	43

1/ Estimate of retail price is basically a single-quart price computed from data published by the Bur. of Labor Statistics. Farm value is computed from data published by the Agr. Mktg. Ser.
2/ Preliminary.

Sales value of products sold per 100 pounds of raw products processed averaged $11.28 in 1960, up slightly from 1959. Cost of raw materials and operating expenses totaled $10.90, up slightly more than 1 percent from 1959. Net margin before payment of income taxes was 38 cents--a drop of 1 cent from 1959.

Manufactured Dairy Products

Cheese

Population growth and increased per capita consumption of whole-milk cheeses have had marked effects on wholesale prices of cheese and on prices paid to farmers for milk. In October-December 1960, wholesale prices were the highest in 7 years; wholesale prices for American cheddar cheese at Wisconsin assembly points averaged about 40.0 cents, 6 cents higher than a year earlier and the 1954-58 5-year average. On January 27, 1961, however, the price on the Wisconsin Cheese Exchange declined 4 cents a pound, bringing the market price below the level of January 1960. Prices paid to farmers for milk for cheese during October-December 1960 averaged about $3.70 per 100 pounds, about 8 percent higher than in 1959 and nearly 9 percent higher than in 1954-58. Competition for milk has been keen. Cheese plants expanded their supply areas competing actively with butter-nonfat dry milk plants for the milk supply at the farm level; farm prices for milk rose in the major dairy manufacturing areas. The strength of the cheese market enabled cheese plants to not only maintain but to widen their margins. On the other hand, the market for butter and nonfat dry milk did not improve and manufacturers of these products had to absorb the increasing costs of milk.

Wholesale prices of cheese were above price support levels continuously for the past 17 months (August 1959-December

Table 11.--Trends in sales value, raw material costs, operating expenses, and margins per unit of product for a selected group of milk distributors, 1952, 1954, 1956-60

(1952 = 100)

Item	1952	1954	1956	1957	1958	1959	1960 1/
Net sales receipts	100	94	99	98	98	99	99
Cost of raw materials							
Raw milk and cream	100	87	91	88	86	87	87
Other	100	100	102	101	98	98	102
Total	100	89	92	90	88	89	89
Gross margin	100	103	109	111	112	113	114
Operating expenses:							
Salaries, wages, and commissions	100	103	113	116	119	121	123
Containers	100	108	120	118	117	115	109
Operating supplies	100	117	93	97	97	97	100
Rent, repairs, and depreciation	100	114	128	134	136	134	135
Other expenses	100	106	113	111	115	113	126
Total	100	106	114	117	118	119	121
Net margin before income taxes	100	77	69	71	63	70	65

1/ Preliminary.

1960). This marks the first time since 1952 that the cheese market has been strong for a sustained period. Prices paid to farmers for raw milk during the last 2 months of 1959 and all of 1960 were the highest in recent years.

Some evidence, not necessarily conclusive, indicates that the improvement in the cheese market began in 1958. Cheese marketed through regular commercial channels totaled 1,166 million pounds in 1957, 1,319 million pounds in 1958, 1,325 million pounds in 1959, and 1,476 million pounds in 1960. Government purchases under price supports were 241 million pounds in 1957, 80 million pounds in 1958, 57 million pounds in 1959, and only 250,000 pounds in 1960. Prices did not respond to the increasing demand in 1958 and the first 7 months of 1959 because the supply still exceeded the effective commercial market demand; prices remained at or near the price support levels. But by September 1959, there was no longer a surplus. Demand continued to improve and both wholesale prices and prices to farmers responded.

The generally stronger demand for cheese was also reflected in the retail price, marketing margin, and farm value of American processed cheese. Retail price increased from 58.2 cents in 1959 to 60.6 cents in 1960, substantially more than the year-to-year change in other recent years (table 12). More than half of this increase of 2.4 cents went to farmers; the

farm value of milk used for 1 pound of cheese increased 1.4 cents--from 28.2 in 1959 to 29.6 cents in 1960. The farm value in the October-December 1960 quarter was more than 8 percent above a year earlier. The farmer's share of the consumer's dollar spent for American processed cheese increased 1 cent to 49 cents in 1960.

In 1960, the total marketing margin increased 1.0 cent to 31.0 cents per pound. The farm-wholesale price spread increased 1.5 cents, while the wholesale-retail price spread decreased by 0.5 cent.

Butter

Retail prices of creamery butter averaged lower in 1960 than in 1959, but farm values were slightly higher. Thus, the marketing margin decreased.

The average retail price of creamery butter was 74.9 cents per pound in 1960, a decrease of 0.4 cent from 1959 (table 12). The farm value of the milk and cream required to produce a pound of butter increased from 52.5 cents to 53.1 cents. This increase probably resulted from competition for milk at the local plant level: Higher prices paid for milk for cheese resulting in higher prices for milk for butter. In the October-December 1960 quarter, the farm value was 1.5 cents higher than in the previous quarter and 0.1 cent higher than a year earlier.

The increase of 0.6 cent in the farm value from 1959 to 1960 was absorbed by the marketing system. Marketing margins for butter (the farm-retail price spread) decreased 1.0 cent--from 22.8 cents in 1959 to 21.8 cents in 1960. The wholesale-retail price spread increased from 15.6 cents to 15.8 cents, but the farm-wholesale price spread decreased from 7.2 cents to 6.0 cents.

Evaporated Milk

The average retail price of 14 1/2-ounce cans of evaporated milk was 15.7 cents in 1960, up 0.5 cent from 1959. The marketing margin was 9.4 cents, up 0.4 cent, and the farm value of milk for 1 can was 6.3 cents, up 0.1 cent.

During the 11-year period 1950-60, production of evaporated milk declined from 2,882 million pounds to 2,125 million pounds. In 1950, 5.3 percent of total milk production was used in evaporated milk; the percentage dropped to 4.5 in 1955 and 3.4 in 1960. Per capita consumption decreased from 18.1 pounds in 1950 to 11.1 pounds in 1960.

Ice Cream

Retail prices, marketing margins, and farm values for ice cream generally were quite stable during the decade 1951-60 (fig. 5). During the first 4 years of this period farm values decreased and marketing margins increased. In the 1954-60 period retail prices fluctuated from a low of 85.4 cents to a high 87.8 cents per half gallon of vanilla and chocolate ice cream; the farm-retail spread varied from 63.3 cents to 66.0 cents and farm value from 21.3 cents to 22.7 cents. Of the total farm value all but about 2.0 cents was for dairy products. The major nondairy products were corn sirup and sugar.

For ice cream flavors other than vanilla and chocolate--mostly fruit and nut flavors--the difference between retail price and total ingredient cost is considerably smaller. For some flavors the cost of nondairy ingredients may be as much as 8 to 11 cents per half gallon.

Ice cream and other frozen dairy products are of increasing importance in the dairy industry. On a per capita basis, ice cream consumption was 17.2 pounds in 1950, 18.0 pounds in 1955, and 18.4 pounds in 1960. Of the total milk supply, frozen products utilized 5.9 percent in 1950, 6.6 percent in 1955, and 7.5 percent in 1960.

Many factors explain the increasing popularity of frozen dairy products. Chief among these are improved merchandising methods, convenience to homemakers in serving, increased refrigerator storage space in homes, increases in consumer incomes, and favorable price trends. Dur-

Table 12.--Retail and wholesale prices of principal manufactured dairy products, farm values, and marketing spreads, 1950-60

Year and quarter	American processed cheese						
	United States average retail price per pound	Processed loaf, wholesale price per pound, Chicago	Farm value of equivalent quantity of milk	Farm-retail price spread	Wholesale-retail price spread	Farm-wholesale price spread	Farm value as a percentage of retail price
	Cents	Cents	Cents	Cents	Cents	Cents	Percent
1950	51.1	35.6	27.4	23.7	15.5	8.2	54
1951	58.3	42.8	33.7	24.6	15.5	9.1	58
1952	59.9	44.0	35.2	24.7	15.9	8.8	59
1953	59.6	40.7	30.8	28.8	18.9	9.9	52
1954	57.2	36.5	27.7	29.5	20.7	8.8	48
1955	57.1	36.4	27.7	29.4	20.7	8.7	49
1956	57.2	36.3	28.4	28.8	20.9	7.9	50
1957	57.6	36.5	28.8	28.8	21.1	7.7	50
1958	58.0	36.0	28.1	29.9	22.0	7.9	48
1959	58.2	36.7	28.2	30.0	21.5	8.5	48
1960 1/	60.6	39.6	29.6	31.0	21.0	10.0	49
	Creamery butter						
	United States average retail price per pound	Wholesale price per pound 92 score, Chicago	Farm value of equivalent quantity of milk and cream	Farm-retail price spread	Wholesale-retail price spread	Farm-wholesale price spread	Farm value as a percentage of retail price
1950	72.3	61.7	52.2	20.1	10.6	9.5	72
1951	81.4	69.2	60.0	21.4	12.2	9.2	74
1952	85.0	72.2	62.6	22.4	12.8	9.6	74
1953	79.0	65.9	56.7	22.3	13.1	9.2	72
1954	72.4	59.7	50.4	22.0	12.7	9.3	70
1955	70.9	57.4	49.2	21.7	13.5	8.2	69
1956	72.1	59.2	51.0	21.1	12.9	8.2	71
1957	74.3	59.6	51.7	22.6	14.7	7.9	70
1958	74.2	58.7	51.1	23.1	15.5	7.6	69
1959	75.3	59.7	52.5	22.8	15.6	7.2	70
1960 1/	74.9	59.1	53.1	21.8	15.8	6.0	71
	Evaporated milk						
	United States average retail price per 14-1/2 ounce can	Wholesale price per 14-1/2 ounce can 2/	Farm value of equivalent quantity of milk	Farm-retail price spread	Wholesale-retail price spread	Farm-wholesale price spread	Farm value as a percentage of retail price
1950	12.6	10.9	6.0	6.6	1.7	4.9	48
1951	14.4	12.7	7.4	7.0	1.7	5.3	51
1952	14.9	13.2	7.9	7.0	1.7	5.3	53
1953	14.6	12.3	6.6	8.0	2.3	5.7	45
1954	13.9	11.6	6.0	7.9	2.3	5.6	43
1955	13.7	11.6	6.0	7.7	2.1	5.6	44
1956	14.0	12.1	6.2	7.8	1.9	5.9	44
1957	14.6	12.6	6.3	8.3	2.0	6.3	43
1958	15.1	12.8	6.2	8.9	2.3	6.6	41
1959	15.2	12.9	6.2	9.0	2.3	6.7	41
1960 1/	15.7	13.2	6.3	9.4	2.5	6.9	40

1/ Preliminary.
2/ United States average manufacturers' selling price per case converted to price per 14-1/2 oz. can.

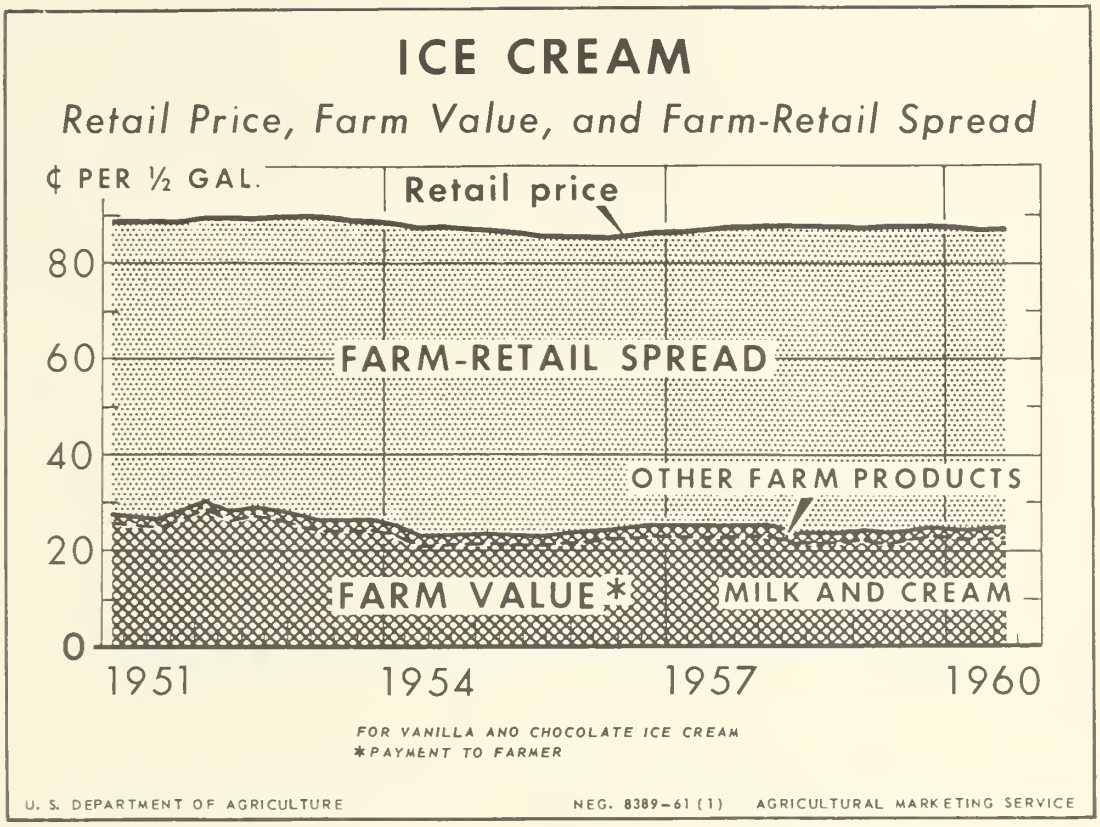

Figure 5

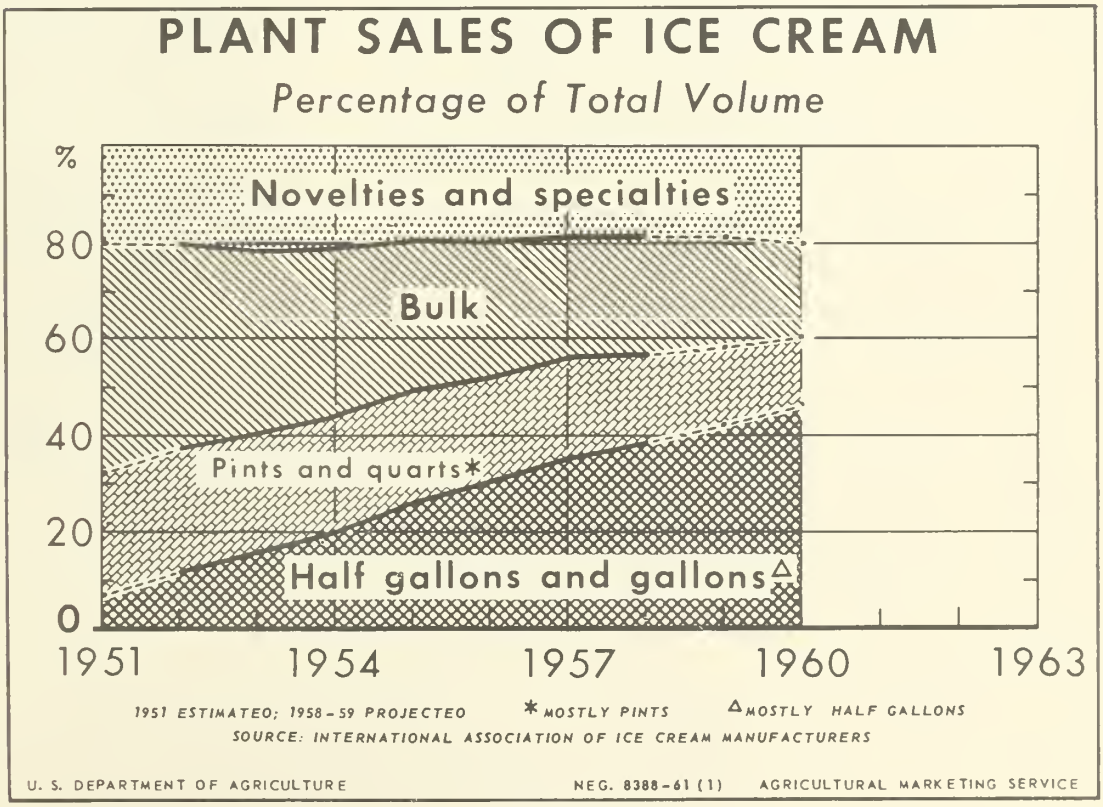

Figure 6

ing the 10 years, 1951-60, the retail price of half gallons of ice cream decreased from 88.9 cents to 86.9 cents; the maximum variation in the annual average price was only about 4 percent. This decrease made ice cream attractive pricewise, since food prices increased by an average of about 13 percent during this period.

It is probable that the actual weighted average retail price of ice cream dropped by at least 10 percent during the 1951-60 period, although the price of half gallons of ice cream remained stable. Most of the ice cream bought for eating at home is hand packed by retailers either in pint or in quart containers at the time of sale or it is prepacked in half-gallon or pint containers at the plant. For a given quantity, prepacked ice cream costs less than the hand-packed product and prepacked half gallons cost less than prepacked pints. For example, over the 10-year period, the price of prepacked half gallons was, on the average, 87.6 cents; the price of the same quantity (a half gallon) in prepacked pints was $1.19. From 1951 to 1960, the proportion of ice cream sold in prepacked half gallons increased from about 8 percent to about 46 percent of the total sales (fig. 6). The proportion sold by plants in bulk for hand packing and for consumption on retailers' premises decreased from 46 percent to 18 percent and the proportion in pints decreased from 25 percent to 15 percent.